

INVESTMENT CASE STUDY

SUBMISSION

Rajeev Agarwal

Investment Strategy for Spark Funds

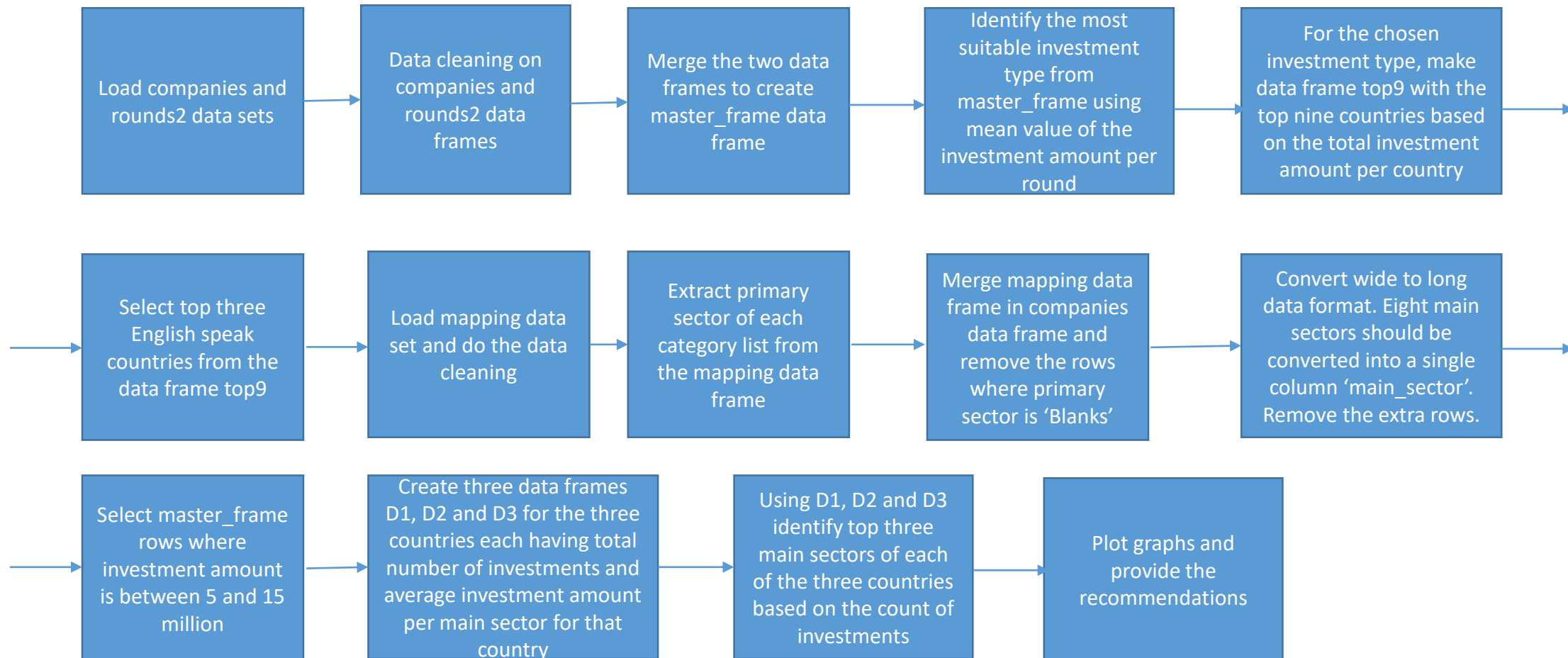
Business objective: The objective is to identify the best sectors, countries, and a suitable investment type for making investments. The overall strategy is to invest where others are investing, implying that the 'best' sectors and countries are the ones 'where most investors are investing'.

Goals of data analysis:

- **Investment type analysis:** Identify Funding Type that is best suited for Spark Funds' strategy.
- **Country analysis:** Identify the English speaking countries which have been the most heavily invested in the past.
- **Sector analysis:** Identify the most invested sectors in the selected countries for the chosen funding type.

Problem solving methodology

Flow chart:



Data Cleaning and Understanding

- We have taken real investment data from **crunchbase.com** for this analysis.
- Following data sets were used to do the analysis.
 - Companies – Company details
 - Rounds2 – Funding round details
 - Mapping – Sector details
- **iso-8859-1** encoding was used to load the data files. Non-ascii characters from companies and rounds2 files were removed after loading.
- Data was cleaned before analysis to remove null and invalid values.
 - Rows with Null permalink values were checked and removed from companies and rounds2.
 - Rows with Null investment amount values were removed.
 - Rows with Null category_list values were removed from companies and mappings data sets.
- Cleaned data sets were merged for the analysis.
- Number of unique companies considered for this analysis – 66368
- Number of total funding rounds across various funding types considered for these companies - 114949

Funding Type Analysis

Objective: Sparks Funds wants to choose one of the following four funding types- Seed, Angel, Venture and Private Equity Type.

Average Funding Amount per investment round for these four funding types:

Funding Type	Average Funding Amount (in Million USD)
Venture	11.75
Angel	0.96
Seed	0.72
Private Equity Type	73.31

Since company wants to invest between **5 to 15 million USD** per investment round, the most suitable investment type is – **Venture**

Country Analysis

Objective: Spark Funds wants to invest in English-speaking countries with the highest amount of funding for the chosen investment type (**Venture**).

Top three English-speaking countries with the highest amounts of total funding for Venture investment type:

Country	Total Funding amount for Venture FT (In Billion USD)
USA	422.51
GBR	20.25
IND	14.39

The three selected countries are – USA, Great Britain, and India

Sector Analysis

Objective: Spark Funds wants to select the most invested sectors in the chosen three English-speaking countries for the investment type - Venture.

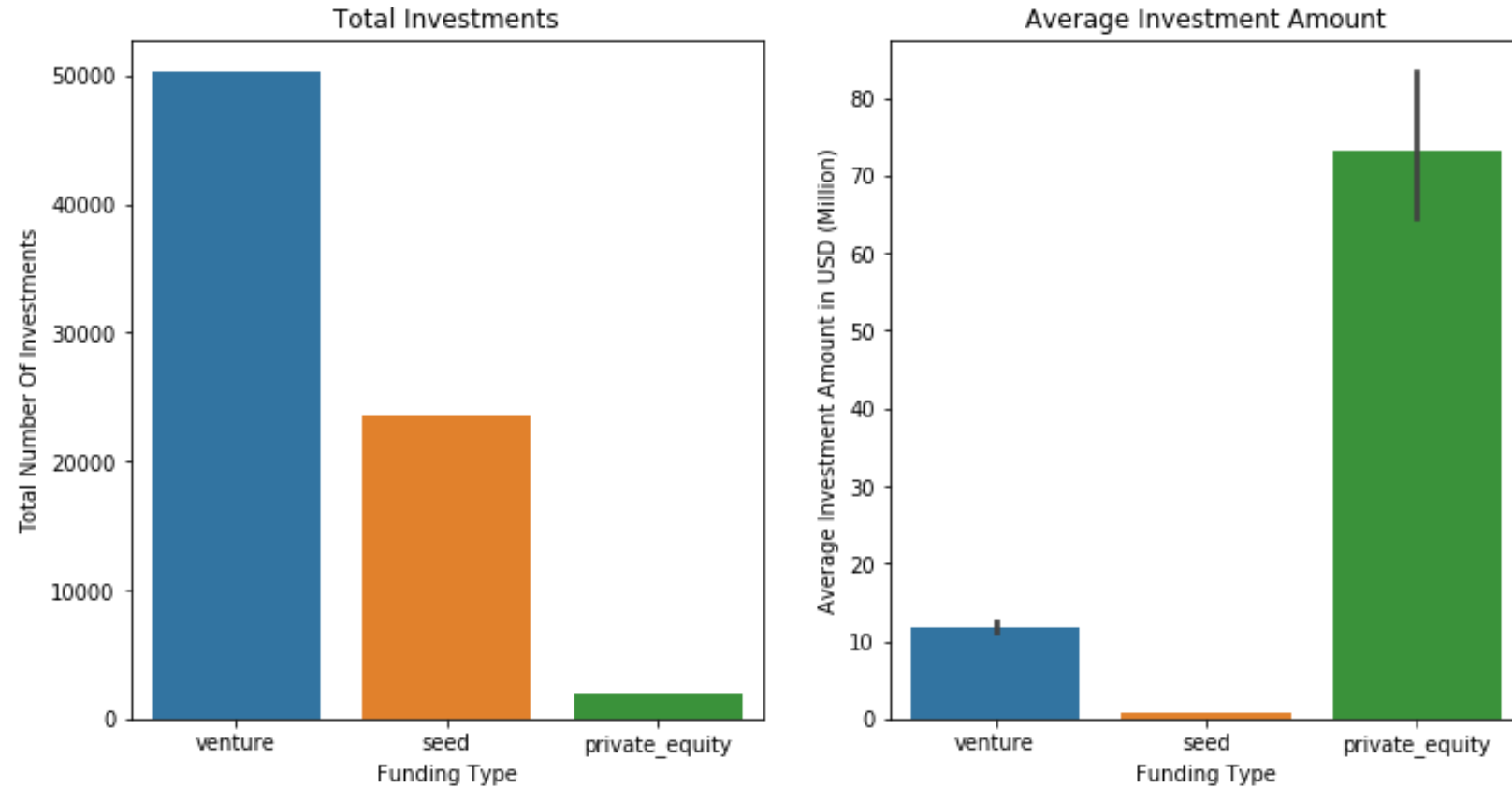
Top three sectors for the countries with the number of investments in each sector:

Assumption: First sector in the category_list column in the companies set is considered as the primary sector of the company

	USA	Great Britain	India
Top Sector name (no. of investment-wise)	Others (2393)	Others (143)	Others (109)
Second Sector name (no. of investment-wise)	Cleantech / Semiconductors (2297)	Cleantech / Semiconductors (127)	News, Search and Messaging (52)
Third Sector name (no. of investment-wise)	Social, Finance, Analytics, Advertising (1912)	Social, Finance, Analytics, Advertising (98)	Entertainment (33)

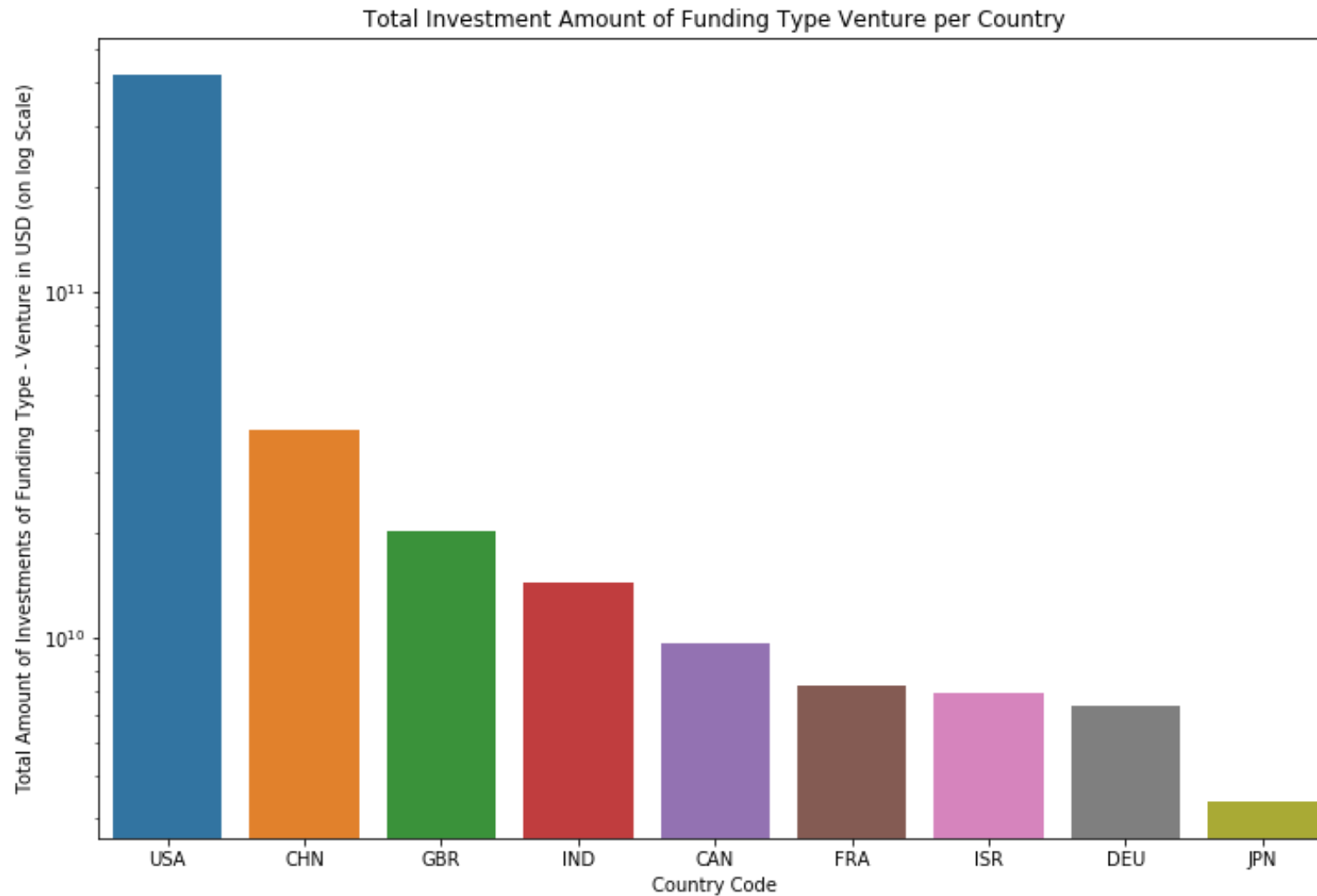
Total Investments and Average Investment Amounts for venture, seed and private equity funding types

Plot1



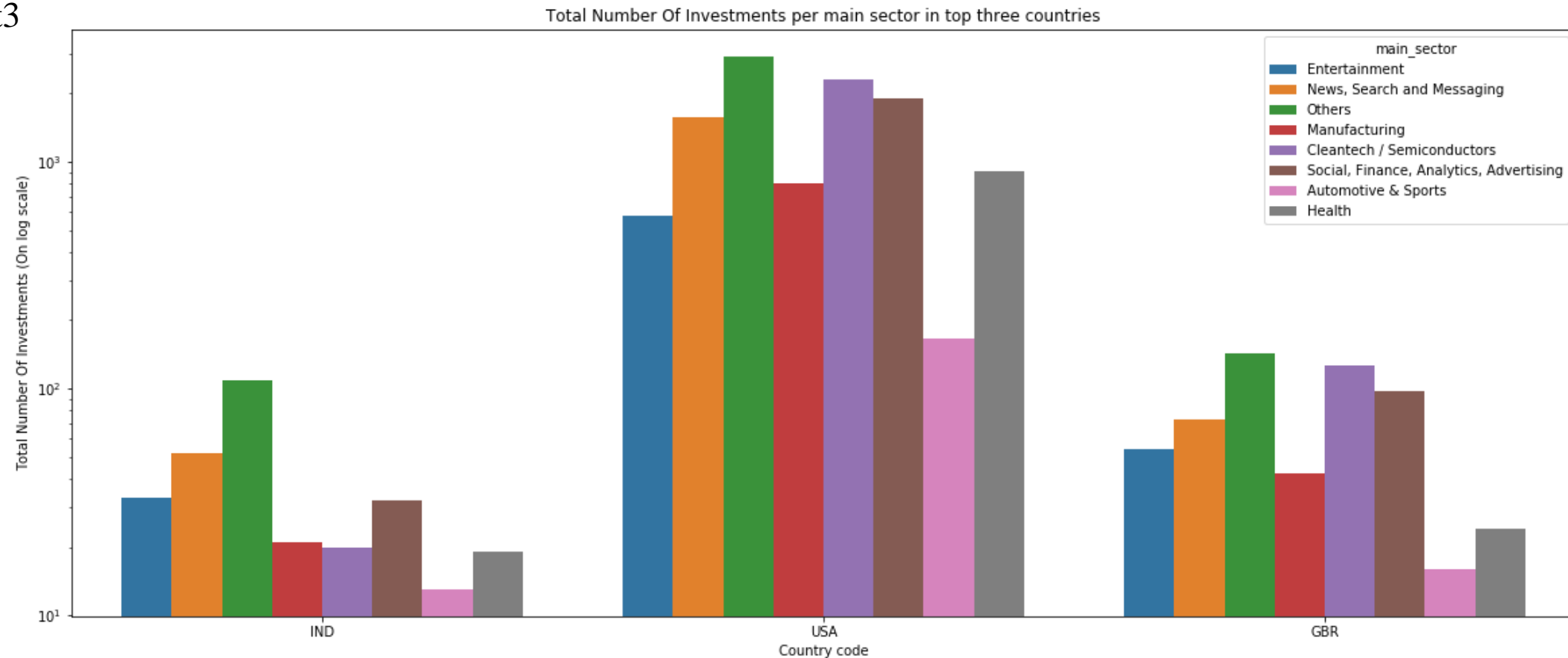
Top nine countries with total investment amount of Venture funding type

Plot2



Total number of investments per main sector in the top three countries

Plot3



Investment Recommendations

Most Suitable Investment Type:

Sparks Funds should invest in the Venture funding type as it has the highest total number of investment with average investment amount value USD 11.75 Million.

Top three English speaking countries:

USA, Great Britain and India are three top English speaking countries with highest amount of funding for the chosen investment type (Venture).

Top three Most invested sectors for each of the three countries:

USA – 1. Others, 2. Cleantech / Semiconductors, 3. Social, Finance, Analytics, Advertising

GBR – 1. Others, 2. Cleantech / Semiconductors, 3. Social, Finance, Analytics, Advertising

IND – 1. Others, 2. News, Search and Messaging, 3. Entertainment